Contents of Volume L

Number 1, January, 1991

The Long-Distance Effects of Brain Lesions: Visualization of Myelinated Pathways in the Human Brain Using Polarizing and Fluorescence Microscopy. Judit Miklossy, M.D. and Hendrik Van der Loos, M.D., *Lausanne, Switzerland* 1

Expression and Modulation of HLA-DR on Cultured Human Adult Astrocytes. Voon Wee Yong, Ph.D., Fiona P. Young, B.Sc., Theodora C. G. Ruijs, M.D., Jack P. Antel, M.D., and Seung U. Kim, M.D., Ph.D., *Montreal and Vancouver, Canada* 16

Delayed Central Nervous System Myelination in the Sudden Infant Death Syndrome. Hannah C. Kinney, M.D., Betty Ann Brody, M.D., Ph.D., Dianne M. Finkelstein, Ph.D., Gordon F. Vawter, M.D., Frederick Mandell, M.D., and Floyd H. Gilles, M.D., *Boston, Massachusetts* 29

The Neuromuscular Pathology of the Eosinophilia-Myalgia Syndrome. Roberta J. Seidman, M.D., Lee D. Kaufman, M.D., Leon Sokoloff, M.D., Frederick Miller, M.D., Afif Iliya, M.D., and Nancy S. Peress, M.D., *Stony Brook and Northport, New York* 49

Effect of Methotrexate on Cell Cycle and DNA Synthesis of Astrocytes in Primary Culture: Flow Cytometric Studies. Jocelyn H. Bruce-Gregorios, M.D., David Soucy, B.S., Melissa G. Chen, Ph.D., and Neal Benson, Ph.D., *Miami, Florida* 63

Free and Peptide-Bound Amino Acids as Indicators of Ischemic Damage of the Rabbit Spinal Cord. J. Martiniak, Ph.D., K. Saganová, M.Sc., and M. Chavko, Ph.D., *Šrobárova, Czechoslovakia* 73

Hippocampal Lesions in Dominantly Inherited Alzheimer's Disease. Robert G. Struble, Ph.D., Ronald J. Polinsky, M.D., John C. Hedreen, M.D., Linda E. Nee, M.S.W., Peter Frommelt, M.D., Robert G. Feldman, M.D., and Donald L. Price, M.D., *Baltimore and Bethesda, Maryland, Lemgo, Germany and Boston, Massachusetts* 82

Referees for the Journal of Neuropathology and Experimental Neurology 95

SPECIAL ANNOUNCEMENT—New Editor-in-Chief 96

Cover: Figure 1C (Miklossy and Van der Loos) 4

Number 2, March, 1991

Increased susceptibility of Human Fetal Astrocytes to Human T-Lymphotropic Virus Type I in Culture. Mitsunori Yamada, M.D., Ph.D., Kazuhiko Watabe, M.D., Ph.D., Takahiko Saida, M.D., Ph.D., and Seung U. Kim, M.D., Ph.D., *Vancouver, British Columbia, Canada* 97

A Case of Nonneurologic Gaucher's Disease that Biochemically Resembles the Neurologic Types. Robert H. Glew, Ph.D., Venkatakrishnan Gopalan, B.Sc., Carol A. Hubbell, B.S., Ernest Beutler, M.D., John D. Geil, M.D., and Robert E. Lee, M.D., *Albuquerque, New Mexico, La Jolla, California, Lexington, Kentucky and Pittsburgh, Pennsylvania* 108

Effect of Methotrexate on Glial Fibrillary Acidic Protein Content of Astrocytes in Primary Culture. JOCELYN H. BRUCE-GREGORIOS, M.D., DAVID M. SOUCY, M.D., MELISSA G. CHEN, M.D., AND MICHAEL D. NORENBERG, M.D., *Miami and Gainesville, Florida* 118

Accelerated Response to Reinoculation in Experimental Allergic Encephalomyelitis: Histopathologic Study. SEYMOUR LEVINE, M.D. AND ARTHUR SALTZMAN, B.S., *Valhalla, New York* 126

Medulloblastoma: A Population-based Study of 532 Cases. ROSEBUD O. ROBERTS, M.D., CH.B., CHARLES F. LYNCH, M.D., PH.D., MICHAEL P. JONES, PH.D., AND MICHAEL N. HART, M.D., *Iowa City, Iowa* 134

Freezing Lesions of the Developing Rat Brain: A Model for Cerebrocortical Microgyria. P. HUMPHREYS, M.D., G. D. ROSEN, PH.D., D. M. PRESS, B.S., G. F. SHERMAN, PH.D., AND A. M. GALABURDA, M.D., *Boston, Massachusetts* 145

Immunocytochemical Double Labeling of Glial Fibrillary Acidic Protein and Transferrin Permits the Identification of Astrocytes and Oligodendrocytes in the Rat Brain. SANDRA M. MARTIN, PH.D., HOLLISTER B. LANDEL, ALEXIS J. LANSING, AND VIJAYA K. VIJAYAN, PH.D., *Davis, California* 161

Evidence of Serum-Protein Leakage Across the Blood-Brain Barrier in the Acquired Immunodeficiency Syndrome. ROY H. RHODES, PH.D., M.D., *Los Angeles, California* 171

Book Reviews

Subcortical Dementia. Jeffrey L. Cummings, Ed. (STEVEN T. DEKOSKY, M.D.) 184

Brain Edema: Pathogenesis, Imaging and Therapy. Donlen M. Long, Ed. (Advances in Neurology, Volume 52) (CAROL K. PETITO, M.D.) 185

Neurosciences in India: Retrospect and Prospect. Sunil K. Pandya, Ed. (GUTTI R. RAO, M.D.) 185

A Dissection and Tissue Culture Manual of the Nervous System. Abraham Shahar, Jean de Vellis, Antonia Vernadakis and Bernard Haber, Eds. (MAMDOUHA AHDAB-BARMADA, M.D.) 186

News of the American Association of Neuropathologists, Inc. 187

Cover: Figure 3a (Yamada et al.) 102

NUMBER 3, MAY, 1991

Editorial: Observations (But No Advice) for the Next Editor-in-Chief and the American Association of Neuropathologists. John Moossy, M.D. Editor-in-Chief 189

A New Mouse Mutant with Progressive Motor Neuronopathy. HENNING SCHMALBRUCH, M.D., HANS-JØRGEN SKOVGAARD JENSEN, D.V.M., MARIANNE BJÆRG, B.S., ZOFIA KAMIENIECKA, M.D., AND LENNART KURLAND, B.S., *Copenhagen Denmark* 192

Borna Disease Virus Replicates in Astrocytes, Schwann Cells and Ependymal Cells in Persistently Infected Rats: Location of Viral Genomic and Messenger RNAs by In Situ Hybridization. KATHRYN M. CARBONE, M.D., THOMAS R. MOENCH, M.D., AND W. IAN LIPKIN, M.D., *Baltimore, Maryland and Irvine, California* 205

Cytokine-Induced Expression of Intercellular Adhesion Molecule-1 (ICAM-1) in Cultured Human Oligodendrocytes and Astrocytes. JUN-ICHI SATOH, M.D., PH.D.,

LORNE F. KASTRUKOFF, M.D., AND SEUNG U. KIM, M.D., PH.D., *Vancouver, British Columbia, Canada* 215

An Analysis of Mast Cell Frequency in the Rodent Nervous System: Numbers vary between Different Strains and Can Be Reconstituted in Mast Cell-Deficient Mice. DAVID JOHNSON, PH.D., DAG YASUI, B.S., AND PIERRETTE SEELDRAYERS, M.D., *Boston, Massachusetts* 227

Cellular Pathology of the Nerve Microenvironment in Galactose Intoxication. NANCY J. FORCIER, M.D., ANDREW P. MIZISIN, PH.D., MARY A. RIMMER, B.A., AND HENRY C. POWELL, M.D., M.R.C. PATH., *San Diego, California* 235

Ultrastructural Changes Produced in Dorsal Root Ganglia In Vitro by Exposure to Ethylene Oxide from Hemodialyzers. KAREN R. GARNAAS, ANTHONY J. WINDEBANK, M.D., MARCEIL D. BLEXRUD, AND STEPHEN B. KURTZ, M.D., *Rochester, Minnesota* 256

Reactive Astrogliosis is Widespread in the Subcortical White Matter of Amyotrophic Lateral Sclerosis Brain. P. D. KUSHNER, PH.D., D. T. STEPHENSON, B.A., AND S. WRIGHT, B.S., *San Francisco, California* 263

Letter to the Editor 278

Book Reviews 281

Books Received 284

Abstracts—67th Annual Meeting of the American Association of Neuropathologists 289

Cover: Figure 1 (Schmalbruch et al) 193

NUMBER 4, JULY, 1991

Macrophage Apolipoprotein Synthesis and Endoneurial Distribution as a Response to Segmental Demyelination. BENJAMIN B. GELMAN, PH.D., M.D., JEFFRY GOODRUM, PH.D. AND THOMAS W. BOULDIN, M.D., *Galveston, Texas and Chapel Hill, North Carolina* 383

Transperineurial Vessel Constriction in an Edematous Neuropathy. MICHAEL W. KALICHMAN, PH.D., AND ROBERT R. MYERS, PH.D., *San Diego, California* ... 408

Major Alteration of the Pathological Phenotype in Gamma Irradiated mdx Soleus Muscles. BOAZ WELLER, M.D., GEORGE KARPATI, M.D., SHIRLEY LEHNERT, PH.D., AND STIRLING CARPENTER, M.D., *Montreal, Quebec, Canada* 419

Cytomegalovirus Preferentially Infects a Monocyte Derived Macrophage/Microglial Cell in Human Brain Cultures: Neuropathology Differs Between Strains. LYNN PULLIAM, PH.D., *San Francisco, California* 432

Infection of Human Neural Cell Aggregate Cultures with a Clinical Isolate of Cytomegalovirus. MICHELINE MCCARTHY, M.D., PH.D., LIONEL RESNICK, M.D., FLOYD TAUB, M.D., RENEE V. STEWART, AND RICHARD D. DIX, PH.D., *Miami and Miami Beach, Florida and Silver Spring, Maryland* 441

Parvalbumin-Immunoreactive Neurons in the Neocortex are Resistant to Degeneration in Alzheimer's Disease. PATRICK R. HOF, M.D., KEVIN COX, B.A., WARREN G. YOUNG, PH.D., MARCO R. CELIO, M.D., JOSEPH ROGERS, PH.D., AND JOHN H. MORRISON, PH.D., *New York, New York, San Diego and La Jolla, California, Sun City, Arizona, and Fribourg, Switzerland* 451

Ubiquitin in Motor Neuron Disease: Study at the Light and Electron Microscope. DAVIDE SCHIFFER, M.D., LUCILA AUTILIO-GAMBETTI, PH.D., ADRIANO CHIÒ,

M.D., PIERLUIGI GAMBETTI, M.D., MARIA TERESA GIORDANA, M.D., FILIPPO GULLOTTA, M.D., ANTONIO MIGHELI, M.D., PH.D., AND MARIA CLAUDIA VIGLIANI, M.D., *Turin, Italy, Cleveland, Ohio, and Münster, Germany* 463

A Progressive Deposition of Paired Helical Filaments (PHF) in the Brain Characterizes the Evolution of Dementia in Alzheimer's Disease. An Immunocytochemical Study with a Monoclonal Antibody Against the PHF Core. RAUL MENA, M.D., PH.D., CLAUDE M. WISCHIK, PH.D., MICHAL NOVAK, M.D.V., PH.D., CESAR MILSTEIN, PH.D., AND A. CLAUDIO CUELLO, M.D., D.SC., *Montreal, Quebec, Canada, Cambridge, United Kingdom, and Bratislava, Czechoslovakia* ... 474

Neurofilament Distribution is Altered in the *Mnd* (Motor Neuron Degeneration) Mouse. LINDA M. CALLAHAN, PH.D., ESTHER L. WYLEN, B.S., ANNE MESSER, PH.D., AND JOSEPH E. MAZURKIEWICZ, PH.D., *Albany, New York* 491

The Purkinje Cell and its Afferents in Human Hereditary Ataxia. ARNULF H. KOEPPEN, M.D., *Albany, New York* 505

Book Reviews

Byron H. Waksman (Ed.) *Immunologic Mechanisms in Neurologic and Psychiatric Disease.* (REVIEWED BY MAURO DAL CANTO, M.D.) 515

Richard L. Davis and David M. Robertson (Eds.) *Textbook of Neuropathology.* (REVIEWED BY WILLIAM R. MARKESBERY, M.D.) 516

Letter from the Editor-in-Chief 518

Cover: Figure 4 (Pulliam) 436

NUMBER 5, SEPTEMBER, 1991

Persistence of Theiler's Virus Infection Following Promotion of Central Nervous System Remyelination. AMY K. PATICK, PH.D., ROGER L. THIEMANN, PETER C. O'BRIEN, PH.D., AND MOSES RODRIGUEZ, M.D., *Rochester, Minnesota* 523

Neuropathology of Bovine β-Mannosidosis. JON S. PATTERSON, D.V.M., PH.D., MARGARET Z. JONES, M.D., KATHRYN L. LOVELL, PH.D., AND BRUCE ABBITT, D.V.M., *East Lansing, Michigan and College Station, Texas* 538

Ubiquitin-Immunoreactive Dystrophic Neurites in Down's Syndrome Brains. L. A. MATTIACE, PH.D., Y. KRESS, M.S., P. DAVIES, PH.D., H. KSIEZAK-REDING, PH.D., S.-H. YEN, PH.D., AND D. W. DICKSON, M.D., *Bronx, New York* 547

Differential Expression of β Amyloid Protein Precursor (APP) and tau mRNA in the Aged Human Brain: Individual Variability and Correlation between APP-751 and Four-Repeat tau. FUMITAKA OYAMA, PH.D., HIROYUKI SHIMADA, M.D., RIEKO OYAMA, B.S., KOITI TITANI, PH.D., AND YASUO IHARA, M.D., *Aichi and Tokyo, Japan* 560

Experimental Superficial Siderosis of the Central Nervous System. I. Morphological Observations. ARNULF H. KOEPPEN, M.D., AND ROSEMARY C. BORKE, PH.D., *Albany, New York and Bethesda, Maryland* 579

The Long Distance Effects of Brain Lesions: Visualization of Axonal Pathways and Their Terminations in the Human Brain by the Nauta Method. JUDIT MIKLOSSY, M.D., STEPHANIE CLARKE, M.D., AND HENDRIK VAN DER LOOS, M.D., *Lausanne, Switzerland* 595

Regulation of Aberrant Neurofilament Phosphorylation in Neuronal Perikarya. I. Production Following Colchicine Application to the Sciatic Nerve. BRUCE G. GOLD, PH.D., AND DANIEL R. AUSTIN, M.S., *Portland, Oregon* 615

Regulation of Aberrant Neurofilament Phosphorylation in Neuronal Perikarya. II.

Correlation with Continued Axonal Elongation Following Axotomy. BRUCE G. GOLD, PH.D., DANIEL R. AUSTIN, M.S., AND JOHN W. GRIFFIN, M.D., *Portland, Oregon and Baltimore, Maryland* 627

Uncompacted Inner Myelin Lamellae in Inherited Tendency to Pressure Palsy. HIROO YOSHIKAWA, M.D., AND PETER JAMES DYCK, M.D., *Rochester, Minnesota* 649

Comparative Histology of Experimental Allergic Neuritis Induced with Minimum Length Neuritogenic Peptides by Adoptive Transfer with Sensitized Cells or Direct Sensitization. HENRY C. POWELL, M.D., TSAIWEI OLEE, PH.D., STEVEN W. BROSTOFF, PH.D., AND ANDREW P. MIZISIN, PH.D., *La Jolla, California and Charleston, South Carolina* 658

In Memoriam: Leon Roizin, M.D. (1912–1991). (Mavis A. Kaufman, M.D.) 675

News of the American Association of Neuropathologists, Inc. 677

Letter to the Editor
Astrocytic Changes in White Matter of ALS Brain. Irwin Feigin, M.D. REPLY: PINKY DROSTEN KUSHNER, PH.D. 678

Neuropathologist Named 30th Director of AFIP 680

Cover: Figure 1 (Yoshikawa and Dyck) 653

NUMBER 6, NOVEMBER, 1991

Spatial Distribution of Fiber Degeneration in Acute Hypoglycemic Neuropathy in Rat. SHUNJI YASAKI, M.D. AND PETER JAMES DYCK, M.D., *Rochester, Minnesota* 681

Relationship of Wallerian Degeneration to Regrowing Axons. NORMAN R. WEST, PH.D. AND GEORGE H. COLLINS, M.D., *Syracuse, New York* 693

Transperineurial Arterioles in Human Sural Nerve. JOHN BEGGS, PH.D., PETER C. JOHNSON, M.D., M.A., ASTRID OLAFSEN, M.S., C. JANE WATKINS, AND COLLEEN CLEARY, B.S., *Phoenix, Arizona* 704

Restoration of Blood-Nerve Barrier in Neuropathy is Associated with Axonal Regeneration and Remyelination. THOMAS W. BOULDIN, M.D., TODD S. EARNHARDT, A.B., AND NELSON D. GOINES, A.B., *Chapel Hill, North Carolina* 719

Decreased Neuronal and Increased Oligodendroglial Densities in Huntington's Disease Caudate Nucleus. R. H. MYERS, PH.D., J. P. VONSATTEL, M.D., P. A. PASKEVICH, M.A., D. K. KIELY, M.P.H., T. J. STEVENS, B.A., L. A. CUPPLES, PH.D., E. P. RICHARDSON, JR., M.D., AND E. D. BIRD, M.D., *Boston, Massachusetts* 729

The Neuropathologic Basis of Different Clinical Subgroups of Parkinson's Disease. WERNER PAULUS, M.D. AND KURT JELLINGER, M.D., *Vienna, Austria* 743

Occurrence of Lacto Series Gangliosides 3′-isoLM1 and 3′,6′-isoLD1 in Human Gliomas *In Vitro* and *In Vivo*. CAROL J. WIKSTRAND, PH.D., XUANMIN HE, M.D., PH.D., GREGORY N. FULLER, M.D., PH.D., SANDRA H. BIGNER, M.D., PAM FREDMAN, PH.D., LARS SVENNERHOLM, M.D., AND DARELL D. BIGNER, M.D., PH.D., *Durham, North Carolina and Gothenburg, Sweden* 756

Effects of Methotrexate on RNA and Purine Synthesis of Astrocytes in Primary Culture. JOCELYN H. BRUCE-GREGORIOS, M.D., RAM P. AGARWAL, PH.D., ALAN ORACION, ARNOLD RAMIREZ, AND LIN LIN, *Miami, Florida* 770

Localization of the CD44 Glycoprotein to Fibrous Astrocytes in Normal White Matter and to Reactive Astrocytes in Active Lesions in Multiple Sclerosis. NIGEL GIRGRAH, MICHELLE LETARTE, LAURENCE E. BECKER, M.D., TONY F. CRUZ, ELIZABETH

THERIAULT, AND MARIO A. MOSCARELLO, M.D., PH.D., *Toronto, Ontario, Canada* 779

Neurochemical and Immunocytochemical Studies of Catecholamine System in the Brindled Mouse. JUNICHI SATOH, M.D., MIKA IRINO, PH.D., PARTHENA M. MARTIN, PH.D., RICHARD B. MAILMAN, PH.D., AND KINUKO SUZUKI, M.D., *Chapel Hill, North Carolina and Tokyo, Japan* 793

Book Reviews

Comprehensive Neurology. Roger N. Rosenberg, Ed. (RICHARD W. FINCHAM, M.D.) 809

Peripheral Neurology: Case Studies in Electrodiagnosis. Jay A. Liveson. (MARK A. ROSS, M.D.) 809

Aging of the Brain: Cellular and Molecular Aspects of Brain Aging and Alzheimer's Disease. T. Nagatsu and O. Hayaishi, Eds. (RODRIGO O. KULJIS, M.D.) 810

Author Index 811

Subject Index 816

Cover: Figure 7 (Girgrah et al) 789

U.S. Postal Service

STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION

Required by 39 U.S.C. 3685)

1A. Title of Publication:	1B. PUBLICATION NO.	2. Date of Filing
JOURNAL OF NEUROPATHOLOGY & EXPERIMENTAL NEUROLOGY	0 0 2 8 1 5 0 0	August 30, 1991
3. Frequency of Issue: Bimonthly	3A. No. of Issues Published Annually: 6	3B. Annual Subscription Price: $70.00

4. Complete Mailing Address of Known Office of Publication (*Street, City, County, State and ZIP + 4 Code*) (*Not printers*)

810 East 10th Street, Lawrence, KS 66044 (Douglas county)

5. Complete Mailing Address of the Headquarters of General Business Offices of the Publisher (*Not printer*)

Same as #4

6. Full Names and Complete Mailing Address of Publisher, Editor, and Managing Editor (*This item MUST NOT be blank*)

Publisher (*Name and Complete Mailing Address*)

American Association of Neuropathologists, Inc.,810 East 10th St., Lawrence, KS 66044

Editor (*Name and Complete Mailing Address*)

Michael Noel Hart, M.D.,Division of Neuropathology, Department of Pathology, University of Iowa College of Medicine, 14BA Medical Laboratories, Iowa City, IA 52242

Managing Editor (*Name and Complete Mailing Address*)

7. Owner (*If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual must be given. If the publication is published by a nonprofit organization, its name and address must be stated.*) (*Item must be completed.*)

Full Name	Complete Mailing Address
American Association of Neuropathologists, Inc.	810 East 10th St., Lawrence, KS 66044

8. Known Bondholders, Mortgagees, and Other Security Holders Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages or Other Securities (*If there are none, so state*)

Full Name	Complete Mailing Address
None	

9. For Completion by Nonprofit Organizations Authorized To Mail at Special Rates (*DMM Section 423.12 only*)
The purpose, function, and nonprofit status of this organization and the exempt status for Federal income tax purposes (*Check one*)

(1) [X] Has Not Changed During Preceding 12 Months (2) [ ] Has Changed During Preceding 12 Months (*If changed, publisher must submit explanation of change with this statement.*)

10. Extent and Nature of Circulation (*See instructions on reverse side*)	Average No. Copies Each Issue During Preceding 12 Months	Actual No. Copies of Single Issue Published Nearest to Filing Date
A. Total No. Copies (*Net Press Run*)	1800	1800
B. Paid and/or Requested Circulation: 1. Sales through dealers and carriers, street vendors and counter sales		
2. Mail Subscription (*Paid and/or requested*)	1583	1614
C. Total Paid and/or Requested Circulation (*Sum of 10B1 and 10B2*)	1583	1614
D. Free Distribution by Mail, Carrier or Other Means Samples, Complimentary, and Other Free Copies	13	13
E. Total Distribution (*Sum of C and D*)	1596	1627
F. Copies Not Distributed: 1. Office use, left over, unaccounted, spoiled after printing	204	173
2. Return from News Agents		
G. TOTAL (*Sum of E, F1 and 2—should equal net press run shown in A*)	1800	1800

11. I certify that the statements made by me above are correct and complete

Signature and Title of Editor, Publisher, Business Manager, or Owner: X Michael Noel Hart

PS Form 3526, Feb. 1989 (*See instructions on reverse*)